
Rule WLM060: PLPA and COMMON page data sets may be combined onto same actuator

Finding: CPExpert believes that the PLPA and COMMON page data sets may be combined onto the same actuator.

Impact: This finding can have a LOW IMPACT on performance of your computer system. However, the finding might save the cost of one actuator!

Logic flow: This is a basic finding. There are no predecessor rules. However, this finding is suppressed if any service class waited for Common page faults to be resolved from auxiliary storage.

Discussion: Paging for Pageable Link Pack Area (PLPA) and Common Service Area (CSA) often is quite low. If paging is low for the PLPA and CSA, there is little reason to dedicate individual local page packs to the PLPA and COMMON page data sets. These data sets can be placed onto a single actuator with virtually no performance effect.

If the PLPA and COMMON page data sets are placed onto a single actuator, this could free one actuator for other use.

CPExpert produces Rule WLM060 if the number of page-in operations from PLPA and COMMON was extremely low and if no service classes waited for pages from COMMON.

The following example illustrates the output from Rule WLM060:

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RULE WLM060: PLPA AND COMMON PAGE DATA SETS MAY BE COMBINED
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CPExpert noticed that the page-in rate for the Pageable Link Pack Area (PLPA) and the Common area (COMMON) was so low during the entire period being analyzed that performance would not be adversely effected if the two data sets had been combined onto a single actuator. Combining these low-activity data sets onto one actuator would make the second actuator available for other data sets. Please make sure that this finding regularly occurs (perhaps after analyzing a week's performance data) before combining the data sets.
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Suggestion: CPExpert suggests that you consider combining the PLPA and COMMON page data sets onto a single actuator. This is effectively accomplished by defining a **very** small PLPA page data set and increasing the size of the

COMMON page data set to accommodate the PLPA pages. PLPA will overflow into the COMMON page data set.

Please make sure that this finding regularly occurs (perhaps after analyzing a week's performance data) before combining the data sets.

Reference: "Analysis of Processor Storage and Paging Configurations," Bretvas, Thomas (IBM Corporation), *Conference Proceedings*, 1986 International Conference on Management and Performance Evaluation of Computer Systems (CMG '86).